

**THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Appellants: Ronald S. Kolessar  
Appl. No.: 09/896,246  
Conf. No.: 9192  
Filed: June 29, 2001  
Title: MEDIA DATA USE MEASUREMENT WITH REMOTE  
DECODING/PATTERN MATCHING  
Art Unit: 2623  
Examiner: Timothy R. Newlin  
Docket No.: 339198-00052 (P0043A)

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**APPELLANTS' SUPPLEMENTAL BRIEF ON APPEAL  
TO THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Sir:

Appellants submit this Supplemental Appeal Brief in response to the Notice of Non-Compliant Brief dated November 24, 2008 and in support of the Notice of Appeal filed on April 17, 2008. This Appeal is taken from the Final Rejection in the Office Action dated December 17, 2007, and Notice of Panel Decision from Pre-Appeal Brief Review dated October 1, 2008.

Specifically, the Notice alleges that the brief Summary did "not contain a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings, if any, by reference characters." Appellant respectfully submits that this is not the case – the Summary indeed contained the necessary information required by 37 CFR 41.37(c)(1 )(v). In the interests of moving the appeal forward, Appellant has included additional references providing further detail. The Appendix documents previously submitted by Appellant are not included with this paper.

## I. REAL PARTY IN INTEREST

The real party in interest for the above-identified patent application on Appeal is Arbitron Inc.

## **II. RELATED APPEALS AND INTERFERENCES**

Appellants' legal representative and the Assignee of the above-identified patent application do not know of any prior or pending appeals, interferences or judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision with respect to the above-identified Appeal.

### **III. STATUS OF CLAIMS**

Claims 1-142 are pending in the above-identified patent application. Claims 1, 2, 5-23, 26-49, 52-82, 85-95, 99-105 and 108-142 have been rejected. Claims 3-4, 24-25, 50-51, 83-84, 96-98, 106 and 107 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claim and any intervening claims. Accordingly, Claims 1, 2, 5-23, 26-49, 52-82, 85-95, 99-105 and 108-142 are being appealed in this Brief. A copy of the appealed claims is included in the Claims Appendix.

#### **IV. STATUS OF AMENDMENTS**

Appellant filed amendments to the claims on August 23, 2007. The Final Office Action, mailed on December 17, 2007, entered the amendments. Appellants filed a Notice of Appeal in Response on April 17, 2008. No further amendments were made by Appellant. A copy of the Final Office Action is attached as Exhibit A in the Evidence Appendix.

## V. SUMMARY OF CLAIMED SUBJECT MATTER

A summary of the invention by way of reference to the drawings and specification for each of the independent claims is provided as follows:

Claims 1, 22, 41, 48, 67, 74, 81, 88, 91, 94, 101, 104, 111 and 120 are independent claims in the present application.

Independent Claims 1, 74, 81, 88 and 111 are method claims directed to measuring usage of media data received at a user location.

Independent claims 1 and 111 recite methods for measuring usage of media data ([0009]) received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds ([0009]) and having ancillary codes ([0033-34, 0039]) in at least some of the media data. The method comprises the steps of receiving the media data in a monitoring device (FIG. 1; ref. 20) at the user location ([0047]); forming, without processing the media data sufficiently to decode an ancillary code (i.e., reduced data set – [0047, 0050-57]), a data set in the monitoring device from the media data by including in the data set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds ([0050-57]); communicating the data set to a processing system located remotely from the user location ([0054]); and at the remotely located processing system, processing the data set to decode the ancillary codes ([0049]).

Independent claim 74 recites a method for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds ([0009]) and having ancillary codes ([0033-34, 0039]) in at least some of the media data, where the media data is not processed at the user location to decode the ancillary codes. The method comprises the steps of receiving a data set ([0032]) at a processing system (60) located remotely from the user location (FIG. 1, ref. 20; [0047]), the data set including data sufficient to decode the ancillary codes in the media data, while excluding data required either to reproduce the comprehensible images or the comprehensible sounds ([0050-57]); and at the remotely located processing system, processing the data set to decode the ancillary codes ([0049]).

Independent claims 81 and 88 recite methods for measuring usage of media data received at a user location ([0009]), comprising the steps of receiving media data representing information in a monitoring device at the user location (FIG. 1, ref. 20; [0047]); forming, without processing the media data sufficiently to decode an ancillary code, a data set ([0032]) in the monitoring device representing some, but not all, of the information represented by the media data ([0050-57]); communicating the data set to a processing system located remotely from the user location ([0054]); and at the processing system (60), processing the data set to decode an ancillary code for the media data ([0049]).

Independent claims 22, 41, 48, 67, 91, 94, 101, 104 and 120 are directed to systems for measuring usage of media data received at a user location.

Independent claims 22 and 104 recite a system (FIG. 1) for measuring usage of media data ([0009]) received at a user location. The system comprises a monitoring device (FIG. 1, 20) at the user location and having an input to receive media data representing information ([0030-31]), a first processor (Fig. 1, 30) at the user location coupled with the monitoring device to receive the media data and operative to form ([0033]), without processing the media data sufficiently to decode an ancillary code, a data set ([0032]) representing some, but not all, of the information represented by the media data ([0050-57]). The system further comprises a first communications device (FIG. 1, 40) coupled with the first processor to receive the data set and operative to communicate the data set to a processing system located remotely from the user location ([0037]). A second communications device (FIG. 1, 70) at the processing system is coupled with the first communications device to receive the data set, and a second processor at the processing system (FIG. 1, 60) and having an input coupled with the second communications device to receive the data set received by the second communications device ([0037, 0050-57]), the second processor being operative to process the data set to decode an ancillary code for the media data ([0049]).

Independent claims 41, 101, and 120 recite a system for measuring usage of media data ([0009]) representing information received at a user location ([0030-31]), such media data not having been processed to decode an ancillary code ([0032-33]), where the system comprises a communications device (FIG. 1, 70) at a processing facility located remotely from the user location ([0038]) having an input to receive a data set representing some, but not all, of the

information represented by the media data; and a processor (60) located at the processing facility and coupled with the communications device to receive the data set and operative to process the data set to decode an ancillary code for the media data ([0037, 0050-57]).

Independent claims 48, 67, 91, and 94 recite a system (FIG. 1) for measuring usage of media data ([0009]) received at a user location ([0030-31], the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data ([0033-34, 0039]), where the system comprises means (FIG. 1, 20) for receiving the media data at the user location ([0030-31]); means (30, 40) at the user location for forming, without processing the media data sufficiently to decode an ancillary code, a data set from the media data by including in the data set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds ([0033-36]); means (FIG. 1, 30, 40) for communicating the data set to a processing system (FIG. 1, 60, 70) located remotely from the user location ([0037]); and processing means (FIG. 1, 60) at the processing system for processing the data set to decode the ancillary codes ([0037, 0050-57]).

Although specification citations are given in accordance with C.F.R. 1.192(c), these reference numerals and citations are merely examples of where support may be found in the specification for the terms used in this section of the Brief. There is no intention to suggest in any way that the terms of the claims are limited to the examples in the specification. As demonstrated by the citations above, the claims are fully supported by the specification as required by law. However, it is improper under the law to read limitations from the specification into the claims. Pointing out specification support for the claim terminology as is done here to comply with rule 1.192(c) does not in any way limit the scope of the claims to those examples from which they find support. Nor does this exercise provide a mechanism for circumventing the law precluding reading limitations into the claims from the specification. In short, the specification citations are not to be construed as claim limitations or in any way used to limit the scope of the claims.

**VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

1. Claims 1, 8-14, 21-22, 26, 30-34, 41, 48, 55-59, 66, 67, 74, 81, 85, 88, 91, 94, 101, 101, 104 and 108 were rejected under 35 U.S.C. §102(e) as being anticipated by *Lu et al.* (US Patent 6,647,548).
2. Claims 2, 5-7, 15-20, 27-29, 35-40, 42-47, 49, 52-54, 60-65, 68-73, 75-80, 82, 86-87, 89, 90, 92, 93, 95, 99-100, 102, 103, 105 and 109-110 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Lu et al.* (US Patent 6,647,548). A copy of *Lu* is attached herewith as Exhibit B, respectively.

## VII. ARGUMENT

### A. LEGAL STANDARDS

#### Anticipation under 35 U.S.C. §102(e)

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claim.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

#### Obviousness under 35 U.S.C. §103

In rejecting claims under 35 U.S.C. § 103, the Examiner bears the initial burden of establishing a prima facie case of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). See also *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). The Examiner can satisfy this burden by showing some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *KSR Int'l. v. Teleflex Inc.*, No. 04-1350, 2007 WL 1237837 at 13, 82 USPQ2d 1385, 1396 (Apr. 30, 2007) (citing *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)). Only if this initial burden is met does the burden of coming forward with evidence or argument shift to the Appellant. *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. See also *Piasecki*, 745 F.2d at 1472, 223 USPQ at 788. Thus, the Examiner must not only assure that the requisite findings are made, based on evidence of record, but must also explain the reasoning by which the findings are deemed to support the Examiner’s conclusion.

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary consideration (e.g., the problem solved). *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 148 USPQ 459, 467(1966). “[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art

would employ.” *KSR Int'l v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41, 82 USPQ2d 1385, 1396 (2007) quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336-37 (Fed. Cir. 2006); see also *DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006)(“The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the nature of the problem itself.”); *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)(“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.’”); *In re Hoeschele*, 406 F.2d 1403, 1406-07, 160 USPQ 809, 811-812 (CCPA 1969) (“[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom...”). The analysis supporting obviousness, however, should be made explicit and should “identify a reason that would have prompted a person of ordinary skill in the art to combine the elements” in the manner claimed. *KSR*, 127 S.Ct. at 1731, 81 USPQ2d at 1389.

#### B. THE CLAIMED INVENTION

The claimed invention is generally directed to methods and systems for media data use measurement using remote decoding. Conventional devices that measure/monitor media usage obtain the signals to be monitored either through a direct electrical connection, or by means of a sensor such as a microphone, light-sensitive device, capacitive pickup or magnetic sensor. Typically the device either detects the presence of an ancillary code in the media data or else extracts a signature therefrom for pattern matching, and stores the code or signature for subsequent processing at a remote location. In order to produce audience surveys which are statistically reliable, it is necessary to engage a relatively large number of survey participants, so that it is likewise necessary to supply a relatively large number of monitoring devices, such as stationary or portable devices. It is, therefore, desirable to minimize the complexity of such devices in order to minimize their cost.

Independent claims 1 and 111 recite methods for measuring usage of media data ([0009]) received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds ([0009]) and having ancillary codes ([0033-34, 0039]) in at least some of the media data. The method comprises the steps of receiving the media data in a monitoring device (FIG. 1; ref. 20) at the user location ([0047]); forming, without processing the media data sufficiently to decode an ancillary code (i.e., reduced data set – [0047, 0050-57]), a data set in the monitoring device from the media data by including in the data set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds ([0050-57]); communicating the data set to a processing system located remotely from the user location ([0054]); and at the remotely located processing system, processing the data set to decode the ancillary codes ([0049]).

Independent claim 74 recites a method for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds ([0009]) and having ancillary codes ([0033-34, 0039]) in at least some of the media data, where the media data is not processed at the user location to decode the ancillary codes. The method comprises the steps of receiving a data set ([0032]) at a processing system (60) located remotely from the user location (FIG. 1, ref. 20; [0047]), the data set including data sufficient to decode the ancillary codes in the media data, while excluding data required either to reproduce the comprehensible images or the comprehensible sounds ([0050-57]); and at the remotely located processing system, processing the data set to decode the ancillary codes ([0049]).

Independent claims 81 and 88 recite methods for measuring usage of media data received at a user location ([0009]), comprising the steps of receiving media data representing information in a monitoring device at the user location (FIG. 1, ref. 20; [0047]); forming, without processing the media data sufficiently to decode an ancillary code, a data set ([0032]) in the monitoring device representing some, but not all, of the information represented by the media data ([0050-57]); communicating the data set to a processing system located remotely from the user location ([0054]); and at the processing system (60), processing the data set to decode an ancillary code for the media data ([0049]).

Independent claims 22 and 104 recite a system (FIG. 1) for measuring usage of media data ([0009]) received at a user location. The system comprises a monitoring device (20) at the user location and having an input to receive media data representing information ([0030-31]), a first processor (30) at the user location coupled with the monitoring device to receive the media data and operative to form ([0033]), without processing the media data sufficiently to decode an ancillary code, a data set ([0032]) representing some, but not all, of the information represented by the media data ([0050-57]). The system further comprises a first communications device (40) coupled with the first processor to receive the data set and operative to communicate the data set to a processing system located remotely from the user location ([0037]). A second communications device (70) at the processing system is coupled with the first communications device to receive the data set, and a second processor at the processing system (60) and having an input coupled with the second communications device to receive the data set received by the second communications device ([0037, 0050-57]), the second processor being operative to process the data set to decode an ancillary code for the media data ([0049]).

Independent claims 41, 101, and 120 recite a system for measuring usage of media data ([0009]) representing information received at a user location ([0030-31], such media data not having been processed to decode an ancillary code ([0032-33]), where the system comprises a communications device (70) at a processing facility located remotely from the user location ([0038]) having an input to receive a data set representing some, but not all, of the information represented by the media data; and a processor (60) located at the processing facility and coupled with the communications device to receive the data set and operative to process the data set to decode an ancillary code for the media data ([0037, 0050-57]).

Independent claims 48, 67, 91, and 94 recite a system (FIG. 1) for measuring usage of media data ([0009]) received at a user location ([0030-31], the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data ([0033-34, 0039])), where the system comprises means (20) for receiving the media data at the user location ([0030-31]); means (30, 40) at the user location for forming, without processing the media data sufficiently to decode an ancillary code, a data set from the media data by including in the data set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds ([0033-36]); means (30, 40) for communicating the data

set to a processing system (60, 70) located remotely from the user location ([0037]); and processing means (60) at the processing system for processing the data set to decode the ancillary codes ([0037, 0050-57]).

C. THE REJECTION OF CLAIMS 1, 8-14, 21-22, 26, 30-34, 41, 48, 55-59, 66, 67, 74, 81, 85, 88, 91, 94, 101, 101, 104 AND 108 UNDER 35 U.S.C. §102(E) AS BEING ANTICIPATED BY LU ET AL (US PATENT 6,647,548) SHOULD BE REVERSED BECAUSE THE DOCUMENT FAILS TO TEACH EVERY LIMITATION DISCLOSED IN THE CLAIMS.

Independent claims 1, 22, 41, 48, 67, 74, 81, 88, 91, 94, 101, 104, 111 and 120 each provides for “at the remotely located processing system, processing the data set to decode the ancillary codes.” *Lu* fails to show, either expressly or inherently, such a feature. Rather, *Lu* discloses simply providing for a check as to the presence of such codes at its central site 34. This check consists of “sanity processing,” that is merely a method of determining which already decoded ancillary codes are to be used in a correlation process aimed at producing an identification of media data. See column 12, lines 42-54 and column 13, lines 15-38.

Decoding of ancillary codes does not take place at *Lu*'s central site 34 since such codes have previously been read by its code reader 52 or 60 at, respectively, the household 12 or at such location that the portable metering apparatus 26 may be used. To employ further code reading, i.e., decoding, at central site 34 would lack purpose -- thereby ample justification why doing so is not discussed in *Lu*.

Further still, *Lu* offers additional bases for concluding that any information initially identifiable of media data is obtained at the user site, and not at a remote location. First, at the user site, information from a station detector 54, or alternatively, from manual entry by the viewer into an input device, e.g., a people meter 16, is used to produce the identification of a program in the absence of an ability to read ancillary codes. See column 8, lines 55-67 and column 9, lines 9-47. Second, *Lu* describes its tuning records 90 (which are obtained, for example, from the household metering apparatus 14 located at the household 12) as already containing decoded audio codes by virtue of their inclusion of a code field 96. See column 12, lines 1-20.

In contrast, the present claims clearly provide that initial decoding of ancillary codes is carried out by a processing system located remotely from the recited user location. As will be understood by one of ordinary skill in the art, obtaining information from ancillary codes to enable the measurement of the usage of media data in this manner greatly reduces the complexity and expense of equipment necessary at the user location. Further, initially decoding information at a location remote from the user location permits an ability to select from among many different types of devices having an ability to communicate the data set of Appellant's invention.

Furthermore, the Appellant respectfully maintains that the Office continues to misinterpret and misapply the manner in which "decoding" is executed in a media data use measurement system. In the Final Office Action, the Office posits that *Lu* discloses "at least two types of decoding [that] take place at the central office" (page 2, paragraph 2). The first decoding according to the Office involves the correlation of ancillary codes (FIG. 4, ref. 96) to a look-up table stored in a program library to establish program IDs associated with the ancillary codes (col. 13, lines 18-26; col. 11, line 61).

Appellant respectfully submits that this interpretation ignores the context of the formed data sets and ancillary codes that are ultimately "decoded" at a remote location in the present claims. For example, claim 1 recites "forming, without processing the media data sufficiently to decode the ancillary codes, a data set in the monitoring device" (see claims 22, 48, 81, 94, 104). Similarly, claim 41 recites "media data received at a user location . . . having ancillary codes in at least some of the media data, such media data not having been processed to decode the ancillary codes" (see also claims 41, 67, 74, 88, 91, 101, 111 and 120). Applying these features to the first interpretation of "decoding" in *Lu*, it becomes apparent that the interpretation cannot stand.

According to *Lu*, ancillary codes are inserted into media data by a broadcaster (col. 1, lines 61-66) and received at a user location/monitoring device, where the codes are "read" by a household ancillary code reader (52) (col. 8, lines 13-35; col. 11, lines 11-14). At the outset, Appellant asks: what, if not performing some form of "decoding", is the ancillary code reader doing when it is "reading" the ancillary codes? Appellant respectfully submits that the ancillary code reader is indeed performing the necessary "decoding" – this point was explicitly acknowledged in the Final Office Action (page 3, paragraph 5: "It is true that incoming video data is decoded by the television receiver at the subscriber site"; see also page 4, second

paragraph: “ancillary data is extracted from the signal”). Appellant adds that, under *Lu*, the ancillary codes must be fully decoded, or else the user is required to manually enter channel/station information (col. 9, lines 19-27). At the central office (34), *Lu* discloses a form of “sanity processing” for determining which of the decoded ancillary codes are to be used in a correlation process aimed at producing an identification of media (col. 12, lines 42-54; col. 13, lines 15-38).

While the Final Office Action acknowledges at least some form of decoding at the user location (subscriber site), the Office Action goes further to state that decoding performed at the subscriber site “does not preclude a different decoding step taking place at the central office.” Thus, it appears to the Appellant that the Office Action is attempting to selectively cram three distinct and different processes in an improper attempt to define “decoding” to match the presently claimed features. Specifically, the Office Action appears to view (1) decoding at the subscriber site, (2) sanity processing at the central site, and (3) the correlation process at the central site as disclosures of “decoding”, despite the fact that each of these processes perform different functions. Under interpretation (1), the “decoding” clearly occurs at the subscriber site, where the ancillary code is fully decoded, which is expressly contrary to the present claims. Under (2), as was already conceded by the office, the ancillary codes are already decoded prior to undergoing sanity processing. Under (3), the ancillary codes are merely correlated to the program library to identify programs. Whether (2) and (3) are considered separate or collectively, each process is dependent upon the user site fully decoding the ancillary codes before forwarding them to the central site; if the codes are not decoded properly, the sanity processing at the central site will reject the codes outright (col. 12, lines 42-54).

The second interpretation of “decoding” put forward by the Office (now the fourth definition when read in light of the above) is based upon the mere transmission of data over a PSTN, as described in col. 7, lines 1-5 (see Final Office Action, pages 2-3, paragraph 4). According to the Office Action, it is “inherent” that that the claimed decoding takes place (see page 5, 1st full paragraph). Appellant concedes that modems, in and of themselves, modulate an analog carrier signal to encode digital information, and also demodulate such a carrier signal to decode the transmitted information. However, this is not what Appellant has claimed in the present application. As stated above, the claims require that the data sets are formed “without processing the media data sufficiently to decode the ancillary codes” and that “such media data

not having been processed to decode the ancillary codes.” The decoding in the present claims refers to the manner in which ancillary codes are decoded, and not how the overall transmission is sent to a remote location. Under the Office Action’s second interpretation, the transmissions would not even be received at a remote location under *Lu* if they were formed without sufficient decoding in place at the modem.

For at least these reasons, Applicant submits the rejections under 35 U.S.C. §102 are improper and should be withdrawn. The numerous interpretations of “decoding” in the *Lu* reference are inconsistent with each other and cannot be reconciled with the claimed features in the present application.

D. THE REJECTION OF CLAIMS 2, 5-7, 15-20, 27-29, 35-40, 42-47, 49, 52-54, 60-65, 68-73, 75-80, 82, 86, 87, 89, 90, 92-93, 95, 99-100, 102-103, 105 AND 109-110 UNDER 35 U.S.C. §103(A) AS BEING UNPATENTABLE OVER LU ET AL. (US PATENT 6,647,548) SHOULD BE REVERSED BECAUSE THE EXAMINER HAS NOT MADE OUT A PRIMA FACIE CASE OF OBVIOUSNESS.

1. The cited *Lu* reference fails to disclose or suggest all of the elements of the claimed invention

Claims 2, 5-7, 15-20, 27-29, 35-40, 42-47, 49, 52-54, 60-65, 68-73, 75-80, 82, 86, 87, 89, 90, 92-93, 95, 99-100, 102-103, 105 and 109-110 are claims that depend directly and indirectly from independent claims 1, 8-14, 21-22, 26, 30-34, 41, 48, 55-59, 66, 67, 74, 81, 85, 88, 91, 94, 101, 101, 104 and 108. In light of the arguments submitted above, Appellant respectfully submits that *Lu* fails to teach or suggest the decoding features recited in the independent claims. As such, the rejections under 35 U.S.C. §103(a) are improper and should be reversed.

### VIII. CONCLUSION

Appellants respectfully submit that Claims 1-142 are novel and non-obvious in view of the cited references for the reasons previously discussed. Accordingly, Appellants respectfully submit that the rejections under 35 U.S.C. §102(e) and §103(a) are erroneous in law and in fact and should therefore be reversed by this Board.

The Director is authorized to charge for any additional fees which may be required, or to credit any overpayment to Deposit Account No. 501214. If such a withdrawal is made, please indicate the Attorney Docket No. 339198-0052 (P0043A) on the account statement.

Respectfully submitted,

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Dated: December 24, 2008

## CLAIMS APPENDIX

### PENDING CLAIMS ON APPEAL OF U.S. PATENT APPLICATION SERIAL NO. 11/105,106

1. A method for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, comprising:

receiving the media data in a monitoring device at the user location;

forming, without processing the media data sufficiently to decode an ancillary code, a data set in the monitoring device from the media data by including in the data set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds;

communicating the data set to a processing system located remotely from the user location; and

at the remotely located processing system, processing the data set to decode the ancillary codes.

2. A method according to Claim 1, wherein forming a data set comprises transforming at least a portion of the received media data into frequency-domain data.

3. The method of Claim 2, wherein forming a data set comprises producing amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined component of the ancillary codes.

4. The method of Claim 3, wherein the amplitude data are each formed as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

5. The method of Claim 1, wherein the data set comprises data representing time-domain information.

6. The method of Claim 5, wherein the time-domain data comprises data from a frequency range narrower than a frequency range of the media data.

7. The method of Claim 1, wherein the data set comprises data representing phase information.

8. The method of Claim 1, wherein the media data comprises audio data.

9. The method of Claim 1, wherein the media data comprises video data.

10. The method of Claim 1, wherein the media data is received as acoustic energy.

11. The method of Claim 1, wherein the media data is received as electromagnetic energy.

12. The method of Claim 11, wherein the media data is received as light energy.

13. The method of Claim 1, wherein the media data is received as magnetic energy.

14. The method of Claim 1, wherein the media data is received as electrical energy.

15. The method of Claim 1, wherein processing the data set to decode the ancillary codes comprises processing frequency-domain data.

16. The method of Claim 15, wherein the frequency-domain data is processed to decode components of the ancillary codes at predetermined frequencies.

17. The method of Claim 15, wherein the frequency-domain data is processed to decode code components of the ancillary codes distributed according to a frequency-hopping pattern.

18. The method of Claim 17, wherein the code components comprise pairs of frequency components modified in amplitude to encode information.

19. The method of Claim 17, wherein the code components comprise pairs of frequency components modified in phase to encode information.

20. The method of Claim 1, wherein processing the data set to decode the ancillary codes comprises detecting a spread spectrum code.

21. The method of Claim 1, wherein receiving media data comprises receiving media data in a portable monitoring device carryable on the person of a user.

22. A system for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, comprising:

a monitoring device at the user location and having an input to receive the media data;

a first processor at the user location coupled with the monitoring device to receive the media data and operative to form, without processing the media data sufficiently to decode an ancillary code, a data set including data sufficient to decode the ancillary codes in the media data, while excluding from the data set data required either to reproduce the comprehensible images or the comprehensible sounds;

a first communications device coupled with the first processor to receive the data set and operative to communicate the data set to a processing system located remotely from the user location;

a second communications device at the processing system coupled with the first communications device to receive the data set; and

a second processor at the processing system and having an input coupled with the second communications device to receive the data set received by the second communications device, the second processor being operative to process the data set to decode the ancillary codes.

23. The system of Claim 22, wherein the first processor is operative to form the data set by transforming at least a portion of the received media data into frequency-domain data.

24. The system of Claim 23, wherein the processor is operative to produce amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined component of the ancillary codes.

25. The system of Claim 24, wherein the processor is operative to form each of the amplitude data as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

26. The system of Claim 22, wherein the monitoring device comprises a portable monitoring device carryable on the person of a user.

27. The system of Claim 22, wherein the first processor is operative to include time-domain data in the data set.

28. The system of Claim 27, wherein the time-domain data comprises data from a frequency range narrower than a frequency range of the media data.

29. The system of Claim 22, wherein the first processor is operative to include data representing phase information in the data set.

30. The system of Claim 22, wherein the monitoring device is operative to receive the media data as acoustic energy.

31. The system of Claim 22, wherein the monitoring device is operative to receive the media data as electromagnetic energy.

32. The system of Claim 31, wherein the monitoring device is operative to receive the media data as light energy.

33. The system of Claim 22, wherein the monitoring device is operative to receive the media data as magnetic energy.

34. The system of Claim 22, wherein the monitoring device is operative to receive the media data as electrical energy.

35. The system of Claim 22, wherein the second processor is operative to process the frequency-domain data to decode the ancillary codes.

36. The system of Claim 35, wherein the second processor is operative to process the frequency-domain data by detecting components of the ancillary codes at predetermined frequencies to decode the ancillary codes.

37. The system of Claim 35, wherein the second processor is operative to process the frequency-domain data to decode code components distributed according to a frequency-hopping pattern.

38. The system of Claim 37, wherein the second processor is operative to decode the ancillary codes by detecting pairs of frequency components modified in amplitude to encode information.

39. The system of Claim 37, wherein the second processor is operative to decode the ancillary codes by detecting pairs of frequency components modified in phase to encode identification information.

40. The system of Claim 22, wherein the second processor is operative to decode the ancillary codes in the form of spread spectrum codes.

41. A system for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, such media data not having been processed to decode an ancillary code, comprising:

a communications device at a processing facility located remotely from a user location, the communications device having an input to receive a data set including data sufficient to decode the ancillary codes in the media data, while excluding data required to either reproduce the comprehensible images or the comprehensible sounds; and

a processor located at the processing facility and coupled with the communications device to receive the data set and operative to process the data set to decode the ancillary codes.

42. The system of Claim 41, wherein the processor is operative to decode the ancillary codes by processing frequency-domain data.

43. The system of Claim 42, wherein the processor is operative to detect components of the ancillary codes at predetermined frequencies to decode the ancillary codes.

44. The system of Claim 42, wherein the processor is operative to decode components of the ancillary codes distributed according to a frequency-hopping pattern.

45. The system of Claim 44, wherein the processor is operative to decode pairs of ancillary code frequency components modified in amplitude to encode information.

46. The system of Claim 44, wherein the processor is operative to decode pairs of ancillary code frequency components modified in phase to encode information.

47. The system of Claim 41, wherein the processor is operative to decode the ancillary codes in the form of spread spectrum codes.

48. A system for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, comprising:

means for receiving the media data at the user location;

means at the user location for forming, without processing the media data sufficiently to decode an ancillary code, a data set from the media data by including in the data

set, data sufficient to decode the ancillary codes in the media data, while excluding from the data set, data required either to reproduce the comprehensible images or the comprehensible sounds;

means for communicating the data set to a processing system located remotely from the user location; and

processing means at the processing system for processing the data set to decode the ancillary codes.

49. The system of Claim 48, wherein the means for forming a data set is operative to transform at least a portion of the received media data into frequency-domain data.

50. The system of Claim 49, wherein the means for forming a data set is operative to produce amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined component of the ancillary codes.

51. The system of Claim 50, wherein the means for forming a data set is operative to form each of the amplitude data as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

52. The system of Claim 48, wherein the means for forming the data set is operative to include data representing time-domain information therein.

53. The system of Claim 52, wherein the means for forming a data set is operative to select the time-domain data from a frequency range narrower than a frequency range of the media data.

54. The system of Claim 48, wherein the means for forming a data set is operative to include data representing phase information therein.

55. The system of Claim 48, wherein the means for receiving media data is operative to receive the media data as acoustic energy.

56. The system of Claim 48, wherein the means for receiving media data is operative to receive the media data as electromagnetic energy.

57. The system of Claim 56, wherein the means for receiving media data is operative to receive the media data as light energy.

58. The system of Claim 48, wherein the means for receiving media data is operative to receive the media data as magnetic energy.

59. The system of Claim 48, wherein the means for receiving media data is operative to receive the media data as electrical energy.

60. The system of Claim 48, wherein the processing means is operative to process frequency-domain data to decode the ancillary codes.

61. The system of Claim 60, wherein the processing means is operative to detect components of the ancillary codes at predetermined frequencies to decode the ancillary codes.

62. The system of Claim 60, wherein the processing means is operative to detect code components distributed according to a frequency-hopping pattern to decode the ancillary codes.

63. The system of Claim 62, wherein the processing means is operative to decode the ancillary codes by detecting pairs of frequency components modified in amplitude to encode information.

64. The system of Claim 62, wherein the processing means is operative to decode the ancillary codes by detecting pairs of frequency components modified in phase to encode information.

65. The system of Claim 48, wherein the processing means is operative to decode a spread spectrum code as the ancillary code.

66. The system of Claim 48, wherein the means for receiving the media data comprises a portable monitoring device carryable on the person of an audience member.

67. A system for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, such media data not having been processed to decode the ancillary codes, comprising:

means for receiving a data set at a processing system located remotely from the user location, the data set including data sufficient to decode the ancillary codes in the media data, while excluding data required either to reproduce the comprehensible images or the comprehensible sounds; and

processing means located at the processing system for processing the data set to decode the ancillary codes.

68. The system of Claim 67, wherein the processing means comprises means for processing frequency-domain data to decode the ancillary codes.

69. The system of Claim 68, wherein the processing means is operative to process the frequency-domain data to decode components of the ancillary codes at predetermined frequencies.

70. The system of Claim 68, wherein the processing means is operative to process the frequency-domain data to decode components of the ancillary codes distributed according to a frequency-hopping pattern.

71. The system of Claim 70, wherein the processing means is operative to decode pairs of ancillary code frequency components modified in amplitude to encode information.

72. The system of Claim 70, wherein the processing means is operative to decode pairs of ancillary code frequency components modified in phase to encode information.

73. The system of Claim 67, wherein the processing means is operative to decode the ancillary codes in the form of spread spectrum codes.

74. A method for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds and having ancillary codes in at least some of the media data, such media data not having been processed to decode the ancillary codes, comprising:

receiving a data set at a processing system located remotely from the user location, the data set including data sufficient to decode the ancillary codes in the media data, while excluding data required either to reproduce the comprehensible images or the comprehensible sounds; and

at the remotely located processing system, processing the data set to decode the ancillary codes.

75. The method of Claim 74, wherein processing the data set to decode the ancillary codes comprises processing frequency-domain data.

76. The method of Claim 75, wherein the frequency-domain data is processed to decode components of the ancillary codes at predetermined frequencies.

77. The method of Claim 75, wherein the frequency-domain data is processed to decode components of the ancillary codes distributed according to a frequency-hopping pattern.

78. The method of Claim 77, wherein the code components comprise pairs of frequency components modified in amplitude to encode information.

79. The method of Claim 77, wherein the code components comprise pairs of frequency components modified in phase to encode information.

80. The method of Claim 74, wherein processing the data set to decode the ancillary codes comprises detecting a spread spectrum code.

81. A method for measuring usage of media data received at a user location, comprising:

receiving media data representing information in a monitoring device at the user location;

forming, without processing the media data sufficiently to decode an ancillary code, a data set in the monitoring device representing some, but not all, of the information represented by the media data;

communicating the data set to a processing system located remotely from the user location; and

at the processing system, processing the data set to decode an ancillary code for the media data.

82. The method of claim 81 wherein forming a data set comprises transforming at least a portion of the received media data into frequency-domain data.

83. The method of claim 82, wherein forming a data set comprises producing amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined code component.

84. The method of claim 83, wherein the amplitude data are each formed as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

85. The method of claim 81, wherein receiving media data comprises receiving media data in a portable monitoring device carryable on the person of a user.

86. The method of claim 81, wherein processing the data set comprises processing frequency-domain data.

87. The method of claim 86, wherein the frequency-domain data is processed to decode components of the identification code at predetermined frequencies.

88. A method for measuring usage of media data representing information and received at a user location, such media data not having been processed to decode an ancillary code, comprising:

receiving a data set at a processing system located remotely from the user location, the data set representing some, but not all, of the information represented by the media data; and

at the processing system, processing the data set to decode an ancillary code for the media data.

89. The method of Claim 88, wherein processing the data set comprises processing frequency-domain data.

90. The method of Claim 89, wherein the frequency-domain data is processed to decode components of the identification code at predetermined frequencies.

91. A system for measuring usage of media data representing information received at a user location, such media data not having been processed to decode an ancillary code, comprising:

means for receiving a data set at a processing system located remotely from the user location, the data set representing some, but not all, of the information represented by the media data; and

processing means located at the processing system for processing the data set to decode an ancillary code for the media data.

92. The system of Claim 91, wherein the processing means is operative to process frequency-domain data to decode the identification code.

93. The system of Claim 92, wherein the processing means is operative to process the frequency-domain data to decode components of the identification code at predetermined frequencies.

94. A system for measuring usage of media data received at a user location, comprising:

means for receiving media data representing information at the user location;

data set forming means at the user location for forming, without processing the media data sufficiently to decode an ancillary code, a data set representing some, but not all, of the information represented by the media data;

means for communicating the data set to a processing system located remotely from the user location; and

processor means at the processing system for processing the data set to decode an ancillary code for the media data.

95. The system of Claim 94, wherein the data set forming means is operative to form the data set by transforming at least a portion of the received media data into frequency-domain data.

96. The system of Claim 95, wherein the data set forming means is operative to transform at least a portion of the received media data by producing amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined code component.

97. The system of Claim 96, wherein the data set forming means is operative to form the amplitude data each as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

98. The system of Claim 97, wherein the means for receiving media data comprises a portable device carryable on the person of a user.

99. The system of Claim 94, wherein the processor means is operative to decode the identification code by processing frequency-domain data.

100. The system of Claim 99, wherein the processor means is operative to process the frequency-domain data to decode components of the identification code at predetermined frequencies.

101. A system for measuring usage of media data representing information received at a user location, such media data not having been processed to decode an ancillary code, comprising:

a communications device at a processing facility located remotely from the user location having an input to receive a data set representing some, but not all, of the information represented by the media data; and

a processor located at the processing facility and coupled with the communications device to receive the data set and operative to process the data set to decode an ancillary code for the media data.

102. The system of Claim 101, wherein the processor is operative to decode the identification code by processing frequency-domain data.

103. The system of Claim 101, wherein the processor is operative to process the frequency-domain data to decode components of the identification code at predetermined frequencies.

104. A system for measuring usage of media data received at a user location, comprising:

a monitoring device at the user location and having an input to receive media data representing information;

a first processor at the user location coupled with the monitoring device to receive the media data and operative to form, without processing the media data sufficiently to decode an ancillary code, a data set representing some, but not all, of the information represented by the media data;

a first communications device coupled with the first processor to receive the data set and operative to communicate the data set to a processing system located remotely from the user location;

a second communications device at the processing system coupled with the first communications device to receive the data set; and

a second processor at the processing system and having an input coupled with the second communications device to receive the data set received by the second communications device, the second processor being operative to process the data set to decode an ancillary code for the media data.

105. The system of Claim 104, wherein the first processor is operative to form the data set by transforming at least a portion of the received media data into frequency-domain data.

106. The system of Claim 105, wherein the first processor is operative to form the data set by producing amplitude data for each of a plurality of frequency ranges of the frequency-domain data, each frequency range corresponding to a predetermined component of the identification code.

107. The system of Claim 106, wherein the first processor is operative to form each of the amplitude data as a ratio of amplitude data in a corresponding frequency range to a noise level based on amplitude data outside such corresponding frequency range.

108. The system of Claim 104, wherein the monitoring device comprises a portable monitoring device carryable on the person of a user.

109. The system of Claim 104, wherein the second processor is operative to decode the identification code by processing frequency-domain data.

110. The system of Claim 109, wherein the second processor is operative to process the frequency-domain data to decode components of the identification code at predetermined frequencies.

111. A method for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds, such media data not having been processed to decode an ancillary code, comprising:

receiving a data set at a processing system located remotely from the user location, the data set including data sufficient to decode ancillary codes if present in the media data, while excluding data required either to reproduce the comprehensible images or the comprehensible sounds; and

at the remotely located processing system, processing the data set to decode the ancillary codes if present in the data set.

112. The method according to Claim 111, further comprising:  
receiving the media data in a monitoring device at the user location;  
forming the data set in the monitoring device from the media data; and  
communicating the data set from the user location to the remotely located processing system.

113. The method according to Claim 112, wherein forming the data set comprises transforming at least a portion of the received media data into frequency-domain data.

114. The method according to Claim 112, wherein the data set comprises data representing time-domain information.

115. The method according to Claim 114, wherein the time-domain data comprises data from a frequency range narrower than a frequency range of the media data.

116. The method according to Claim 112, wherein the data set comprises data representing phase information.

117. The method according to Claim 112, wherein the media data comprises audio data or video data.

118. The method according to Claim 112, wherein the media data is received as acoustic energy, electromagnetic energy, light energy, magnetic energy, or electrical energy.

119. The method according to Claim 112, wherein receiving media data comprises receiving media data in a portable monitoring device carryable on the person of a user.

120. A system for measuring usage of media data received at a user location, the media data being reproducible as comprehensible images or comprehensible sounds, such media data not having been processed to decode an ancillary code, comprising:

a processing system located remotely from the user location for receiving a data set, the data set including data sufficient to decode ancillary codes if present in the media data, while excluding data required to reproduce the comprehensible images or the comprehensible sounds;

the remotely located processing system operative to process the data set to decode the ancillary codes if present in the data set.

121. The system of Claim 120, further comprising:  
a receiver operative to receive the media data at the user location;  
a processor at the user location operative to form the data set from the media data;  
and  
a communication device operative to communicate the data set from the user location to the remotely located processing system.

122. The system of Claim 121, wherein the processor is operative to transform at least a portion of the received media data into frequency-domain data.

123. The system of Claim 121, wherein the processor is operative to form the data set including data representing time-domain information therein.

124. The system of Claim 123, wherein the processor is operative to select the time-domain data from a frequency range narrower than a frequency range of the media data.

125. The system of Claim 121, wherein the processor is operative to form the data set including data representing phase information therein.

126. The system of Claim 121, wherein the receiver is operative to receive the media data as acoustic energy, electromagnetic energy, light energy, magnetic energy, or electrical energy.

127. The method of Claim 1, further comprising:  
at the remotely located processing system, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data.

128. The system of Claim 22, wherein the second processor is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

129. The system of Claim 41, wherein the processor is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

130. The system of Claim 48, wherein the processing means is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

131. The system of Claim 67, wherein the processing means is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

132. The method of Claim 74, further comprising:

at the remotely located processing system, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data.

133. The method of Claim 81, further comprising:

at the processing system, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data.

134. The method of Claim 88, further comprising:

at the processing system, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data.

135. The system of Claim 91, wherein the processing means is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

136. The system of Claim 94, wherein the processing means is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

137. The system of Claim 101, wherein the processor is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

138. The system of Claim 104, wherein the second processor is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

139. The method of claim 111, further comprising:

at the remotely located processing system, producing a signature characterizing the media data and matching the produced signature with a reference signature associated with identification data for the media data.

140. The method of claim 139, wherein the signature is produced and matched with the reference signature when ancillary codes are not detected in the data set.

141. The system of Claim 120, wherein the remotely located processing system is further operative to produce a signature characterizing the media data and to match the produced signature with a reference signature associated with identification data for the media data.

142. The system of claim 141, wherein the signature is produced and matched with the reference signature when ancillary codes are not detected in the data set.

**EVIDENCE APPENDIX**

EXHIBIT A: Final Office Action dated December 17, 2007.

EXHIBIT B: *Lu et al.* (U.S. Patent 6,647,548), cited by the Examiner in the Final Office Action dated December 17, 2007.

**RELATED PROCEEDINGS APPENDIX**

None

**APPENDIX A**

Final Office Action dated December 17, 2007

**APPENDIX B**

*Lu et al.* (U.S. Patent 6,647,548), cited by the Examiner in the Final Office Action dated December 17, 2007.